

Title (en)

FAST REDUCTION OF IODINE SPECIES TO IODIDE

Title (de)

SCHNELLE REDUKTION VON IODSPEZIES ZU IODID

Title (fr)

RÉDUCTION RAPIDE D'ESPÈCES IODÉES EN IODURE

Publication

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Application

EP 06776908 A 20060817

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Abstract (en)

[origin: EP1780730A1] It is the aim of the present invention to generate a method and a database of results of suitable mixtures of additives in aqueous solution, which efficiently and rapidly: a) Reduce I₂, RI and iodate to non-volatile iodide ions in a wide range of temperature and pH and, b) Effectively bind the iodide ions to prevent their potential re-oxidation to volatile iodine species especially at low pH and under irradiation. This objectives are achieved by a method for a retention of iodine species in an aqueous solution, comprising the steps of: a) adding a nucleophilic agent or a mixture of a plurality of nucleophilic agents to the aqueous solution; and b) adding a soluble ion-exchanger agent or a mixture of a plurality of soluble ion-exchanger agents to the aqueous solution. This method provides a new way to reduce iodate, molecular iodine and also organic iodides into non-volatile iodide ions and further to bind them to suppress re-generation of volatile iodines.

IPC 8 full level

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